1.   (Amended) A data collection method for scanning a scan window comprising one or more channels comprising the steps of:

detecting an integrated signal (S) across [a] the scan window comprising one or more channels using an integrating detector; and

calculating a velocity-normalized integrated signal (Sn) as a function of a scan velocity and the integrated signal S.

3.   (Amended) The method of claim 1 wherein the step of calculating the velocity-normalized integrated signal (Sn) comprises:

measuring a channel width (w);

determining a time for traversing the channel width (t); and

computing [a] the velocity-normalized integrated signal according to the equation $Sn=S/(w/t)$.

4.   (Amended) The method of claim 1 wherein the step of calculating the velocity-normalized integrated signal (Sn) comprises subtracting a detector offset So from [an] the integrated signal (S).

16.   (Amended) An apparatus for scanning a plurality of channels comprising:

means for detecting an integrated signal (S) across a scan window comprising [one or more] the plurality of channels using an integrating detector; and

computer means for receiving the integrated signal S and determining a scan velocity and for calculating a velocity-normalized integrated signal (Sn) as a function of

the scan velocity and the integrated signal S.

17.   (Twice Amended) An apparatus for scanning a scan window having one or more channels comprising:

an integrating detector;

a scanner for effecting a scanning of the integrating detector relative to [a] the scan window comprising one or more channels, wherein an integrated signal (S) is detected by scanning the integrating detector relative to the scan window; and

a computer for receiving the integrated signal S and for determining a scan velocity and for calculating a velocity-normalized integrated signal (Sn).

23.   (Amended) The program storage device of claim 21 wherein the step of calculating the velocity-normalized integrated signal (Sn) comprises:

measuring a channel width (w);

determining a time for traversing the channel width (t); and

computing [a] the velocity-normalized integrated signal according to the equation Sn=S/(w/t).

25.   (Amended) The program storage device of claim 24 wherein [a] the channel width (w) is measured by counting steps in the stepper motor.

31.   (Amended) A data collection method for scanning a scan window comprising:

detecting an integrated signal (S) across [a] the scan window comprising one or more channels using an integrating detector;

determining an integration time (ti) for the integrated signal; and

calculating a velocity-normalized integrated signal (Sn), the calculating comprising dividing the integrated signal (S) by the integration time (ti).

45.   (Amended) The apparatus of claim 16, further comprising means for determining an integration time (ti) for the integrated signal; and wherein the calculating the velocity-normalized integrated signal comprises dividing the integrated signal (S) by the integration time (ti).

52.   (Amended) The apparatus of claim 17, further comprising a timer configured to determine an integration time (ti) for the integrated signal; and wherein the calculating the velocity-normalized integrated signal comprises dividing the integrated signal (S) by the integration time (ti), and the scan window comprises more than one channel.

REMARKS

Applicant acknowledges the Examiner's indication that claims 28-65 contain allowable subject matter. (Office Action, page 8)